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EXAMINER

GELLNER, JEFFREY L

ART UNIT PAPER NUMBER

3643

DATE MAILED: 08/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/092,796

Applicant(s)

SMITH, JONATHAN D.

Examiner

Jeffrey L. Gellner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 8-19, 55-63, 65-77 and 79-89 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-19, 55-63, 65-77, 79-89 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-6, 8, 9, 11-19, 55-63, 65, 66, and 68-71 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for gibberellic acid to result in cranberries having a mass of less than 0.6 grams when applied, does not reasonably provide enablement for all “plant-growth-regulating composition[s] including gibberellin” as claimed in claims 1 and 56, at line 2, and claim 71, at lines 2-3. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims. The specification appears to only support the use of gibberellic acids in for this method. Examiner does not know of any research that shows that compositions of gibberellin and other growth regulators, such as auxins or ethylene, when applied to cranberries during the period of flower bloom will result in the fruit having a mass of less than 0.6 grams or 0.75 grams or to have a particular percentage fruit set. (see MPEP 2164 for a discussion on enablement, especially genus/species)

The addition of the language of “including gibberellin” to claims 1, 56, and 71 does not obviate the rejection because Applicant’s claim language of “plant-growth-regulating composition including gibberellin” encompasses compositions that include other growth

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regulators that may interact with the effect of the gibberellin. Applicant's specification at page 11, lines 1-9, is considered to enable compositions and mixtures of different gibberellins.

Claims 72-77, 79, 80, and 82-89 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for gibberellic acid to result in cranberries having a fruit set of at least 80% when applied, does not reasonably provide enablement for all "plant-growth-regulating composition[s] including gibberellin" as claimed in claim 72. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims. The specification appears to only support the use of gibberellic acids in for this method. Examiner does not know of any research that shows that that compositions of gibberellin and other growth regulators, such as auxins or ethylene, when applied to cranberries during the period of flower bloom will result in the fruit set of at least 80% or 50%. (see MPEP 2164 for a discussion on enablement, especially genus/species)

The addition of the language of "including gibberellin" to claims 1, 56, and 71 does not obviate the rejection because Applicant's claim language of "plant-growth-regulating composition including gibberellin" encompasses compositions that include other growth regulators that may interact with the effect of the gibberellin. Applicant's specification at page 11, lines 1-9, is considered to enable compositions and mixtures of different gibberellins.

Claims 71-77 and 79-89 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described

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in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. In claims 71 and 72, lines 4 and 3, respectively, Applicant claims “fruit set of at least 80%.” In the “DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS” Applicant discloses the use of GA, by itself, applied to cranberries at concentrations of solution of about 25-350 ppm with 60-100 gallons of solution applied per acre. In the “Materials and Methods” section of their paper Mainland et al. appear to encompass these rates of application of GA but do not achieve fruit set of at least 80% (see Table 1 of Mainland et al).

The language of claim 71 is for application of the composition “during the bloom period” (at line 3). Similarly, the language of claim 72 is for application of the composition “during the bloom period” (at line 2). Claim 73, which depends upon claim 72, limits the “applying step” to “during mid-bloom period” (lines 1 and 2). Since a dependent claim is more narrow in scope (from 35 USC 112 4th para.) than its independent claim, the “bloom period” must be construed as broader than the “mid-bloom period.” Mainland discloses application of a composition at full bloom that does not achieve fruit set of at least 80%. Full bloom is considered within the broader ambit of “during the bloom period.” Hence, the claims do not appear to be enabled for application of the composition “during the bloom period.”

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 8-19 and 55-63, 65-77, and 79-89 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mainland et al. (American Society for Horticultural Science).

As to claims 1, 56, and 67, Mainland discloses applying a plant-growth-regulating composition, gibberellin (abstract and “GA₃” of Tables 1 and 2 of pages 297 and 298) to cranberry plants at boom (1st paragraph of the “Materials and Methods” section of page 297) that reduces mature fruit mass (see “Table 2” of page 298). Not disclosed is the method one for commercially growing miniature cranberries and the mature mass being less than 0.6 grams. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Mainland et al. by using with a commercial crop (since this paper discusses GA’s commercial use) and to achieve a mature fruit mass of less than 0.6 grams by applying the amount of GA need to achieve this fruit size depending upon market conditions.

As to claims 2-6, 8-19, 55, 57-63, 65, 66, and 68-70, the limitations of claim 1 are disclosed and described above. Not disclosed are specific limitations such as concentration of GA, time of application, and means of application. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the method of Mainland et al. by choosing a specific concentration of GA, specific time of application, or specific means of application so as to achieve a specific goal of fruit size since these limitations are commonly known variables that growers routinely manipulate.

As to claim 71, Mainland discloses applying a plant-growth-regulating composition, gibberellin (abstract and “GA₃” of Tables 1 and 2 of pages 297 and 298) to cranberry plants at

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boom (1st paragraph of the “Materials and Methods” section of page 297) that results in the plants with fruit set of at least about 80% (see Table 1 of page 297 at “% set” for “500 ppm GA₃ and 2000 ppm Alar”) and reduces mature fruit mass (see “Table 2” of page 298). Not discloses is the method one for commercially growing miniature cranberries and the mature mass being less than 0.6 grams. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Mainland et al. by using with a commercial crop (since this paper discusses GA’s commercial use) and to achieve a mature fruit mass of less than 0.6 grams by applying the amount of GA need to achieve this fruit size depending upon market conditions.

As to claims 72 and 81, Mainland discloses applying a plant-growth-regulating composition, gibberellin (abstract and “GA₃” of Tables 1 and 2 of pages 297 and 298) to cranberry plants at boom (1st paragraph of the “Materials and Methods” section of page 297) that results in the plants with fruit set of at least about 80% (see Table 1 of page 297 at “% set” for “500 ppm GA₃ and 2000 ppm Alar”). Not discloses is the method one for commercially growing miniature cranberries. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Mainland et al. by using with a commercial crop (since this paper discusses GA’s commercial use).

As to claims 73-77, 79, 80, 82-89, the limitations of claim 72 are disclosed and described above. Not disclosed are specific limitations such as concentration of GA, time of application, and means of application. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the method of Mainland et al. by choosing a specific

concentration of GA, specific time of application, or specific means of application so as to achieve a specific goal of fruit size since these limitations are commonly known variables that growers routinely manipulate.

Response to Arguments

Applicant's arguments filed 5 June 2006 have been fully considered but they are not persuasive. Applicant's arguments are: (1) for the 112 1st para. rejection based on scope of enablement the claims have been amended to include gibberellin (Remarks page 9, 2nd para.); (2) for the 112 1st para. rejection based on enablement because Mainland does not disclose 80% fruit set, Applicant teaches that application of the composition at mid-bloom while Mainland disclosed application at full bloom (Remarks page 9, 3rd para.); (3) for the 112 2nd para. rejection Applicant contends that one of ordinary skill in the art would understand that the amount of growth regulator to apply is based on a variety of factors (Remarks page 9, 4th para.); (4) for the 103 reactions, the Smith declaration states that other have failed to develop a method for commercially growing miniature cranberries and the results are unexpected, further Wandler's declaration shows great commercial success (Remarks page 10, bottom of page; page 11, top half); and, (5) Mainland et al. teaches away from the invention because this reference implies that the end use of growth regulating compounds is to get more berries of acceptable size (Remarks page 11, bottom).

As to argument (1), The addition of the language of "including gibberellin" to claims 1, 56, and 71 does not obviate the rejection because Applicant's claim language of "plant-growth-regulating composition including gibberellin" encompasses compositions that include other

growth regulators that may interact with the effect of the gibberellin. Applicant's specification at page 11, lines 1-9, is considered to enable compositions and mixtures of different gibberellins.

As to argument (2), the language of claim 71 is for application of the composition "during the bloom period" (at line 3). Similarly, the language of claim 72 is for application of the composition "during the bloom period" (at line 2). Claim 73, which depends upon claim 72, limits the "applying step" to "during mid-bloom period" (lines 1 and 2). Since a dependent claim is more narrow in scope (from 35 USC 112 4th para.) than its independent claim, the "bloom period" must be construed as broader than the "mid-bloom period." Mainland discloses application of a composition at full bloom that does not achieve fruit set of at least 80%. Full bloom is considered within the broader ambit of "during the bloom period." Hence, the claims do not appear to be enabled for application of the composition "during the bloom period."

As to argument (3), the rejection based on 35 USC 112 2nd para. has been withdrawn.

As to argument (4), Examiner considers the results of Applicant to not be unexpected. Devlin et al. disclose achieving 80% seed set with small fruit size with application of GA during the bloom period (from Table 1 of page 589, seed size is from the column entitled "Weight/berry"). Knowing the data of Mainland et al. that is strengthened by the data of Devlin et al., one of ordinary skill would be motivated to achieve the method disclosed in Applicant's claims. Smith's and Wandler's statements that others have not developed the method and of great commercial success are not dispositive because the use of small sized cranberries appears to be market driven. Stange and Birrenkott state that "[a]t least two repeat applications appear to provide greatest increases in fruit set. Except for fresh market use, reduced fruit size as a result of growth regulator treatment is not a serious drawback" (from "Conclusions" section on page

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279). It appears from this statement that fruit size (which is correlated with fruit set) is driven by what the market desires or will tolerate.

As to argument (5), Mainland et al.'s statements about the use of GA is not dispositive because the use of small sized cranberries appears to be market driven. Stange and Birrenkott state that "[a]t least two repeat applications appear to provide greatest increases in fruit set. Except for fresh market use, reduced fruit size as a result of growth regulator treatment is not a serious drawback" (from "Conclusions" section on page 279). It appears from this statement that fruit size (which is correlated with fruit set) is driven by what the market desires or will tolerate.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Doughty discloses that the use of growth regulators on cranberries can give variable results (from middle of page 341).

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey L. Gellner whose telephone number is 571.272.6887. The examiner can normally be reached on Monday-Friday, 8:30-4:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon can be reached on 571.272.6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'J. L. Gellner', with a stylized flourish at the end.

Jeffrey L. Gellner
Primary Examiner
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